

# Balneological Care and Challenges of the 21st Century

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## 1 Comparison of Past Developments of the Czech Balneological Care and Possible Trends

With the introduction of national health insurance system in 1993 the payer for a spa treatment has changed from the Czech Administration of Social Insurance to health insurance companies.

Since the year 2000, all tables and graphs published by UZIS (Institute of Health Information and Statistics of the Czech Republic) have contained data for all resorts, and since 2003 they have also included spa hotels that provide spa treatment.

In Table 1, we compare the total number of stay days for all groups (adults, adolescents and children) in the years 2000 and 2013 [1, 2].

Number of total stay days in Czech spas for all groups (adults, adolescents and children) declined from 5,539,523 days in the year 2000 to 4,574,440 days in the year 2013. This decline has occurred despite the fact that since 2003 spa hotels that provide spa treatment have been included in the statistics. Even more significant decrease has been recorded in the number of stay days paid by health insurance companies, namely from 3,915,100 in the year 2000 to 1,568,199 in the year 2013.

The cost of preventive care in health services in the Czech Republic amounts to less than 4 per mille out of the total health insurance payments for health care. This is by far the lowest proportion in comparison with the traditional EU countries. The cost of preventive care is not even monitored by UZIS. In the past, until the year 1990, the spas filled medical rehabilitation not only as a function of health care but also, albeit to a lesser extent, as a curative and preventive function.

For the plenary session of the Council of Economic and Social Agreement (CESA) on 24 June 2013, the then Minister of Health, Assoc. Prof. Leoš Heger, M.D., Ph.D., prepared a paper – Situation in spas in the Czech Republic.

According to him, the reasons for the decline in the number of patients whose treatment is covered by health insurance are as follow:

- response to the development of medicine – in many cases it is not medically justified to suggest providing of repeated spa treatment
- health insurance companies assess more rigorously the effect of the proposed spa treatment
- the impact of the introduction of fees for days of stay,
- the impact of the labor market, where workers can no longer afford to go away for three weeks in the spa due to working disability or vacation,
- decreasing in the solvency of the population

Given the new measurements by the Ministry of Health from the second quarter of 2014, most of the above mentioned reasons has become irrelevant. Yet the Czech spa industry remains virtually in stagnation and spa operators continue to be at risk of insolvency. The Czech Spa Association, the Ministry of Health and Czech Medical Association of J. E. Purkyně jointly organized a public hearings at the Senate of the Czech Republic under the emotional title "The End of the Czech spas". While drawing attention to the problems, these public hearings rather led to a gradual return to the previous rules, which cannot be considered a positive strategic change because when those rules were in effect Czech spa industry did not develop dynamically either.

## 2 What are the Possible Ways of Positive Rational Changes – Smart Innovation?

Obviously, the previous roles of spas in the 19th century and early 20th century, which were characterized not

Table 1: Number of total stay days in Czech spas\* for all groups (adults, adolescents and children) according to payers and type of balneal care.

Payer	Balneal care	Number of days of stay in 2000	Number of days of stay in 2013
Health insurance companies	Complex	3 408 607	1 321 977
Health insurance companies	Partly covered by insurance	506 493	246 222
Health insurance companies	Total	3 915 100	1 568 199
Fully at own cost	Residents	301 659	919 820
Fully at own cost	Foreigners	1 322 764	2 086 421
Fully at own cost	Total	1 624 423	3 006 291
Health insurance companies + Fully at own cost	Total	5 539 523	4 574 440

\*Includes spa hotels that provide spa treatment [1, 2].

only by medical but also by social function, cannot be returned in a modern society. Most traditional methods of medical treatment virtually has not changed over the last 50 years.

In November 2013 the Research Institute of Balneology (VUB) completed a strategic study called RIS3 Ústeckého kraje (Research Innovation Strategy 3 for spas of Ústí region) though some conclusions are of general importance. This study was supported and partially funded by the Ústí Region Fund.

Project RIS3 of spa-industry in Ústí region after analytical evaluation formulates two basic strategic innovation visions.

**Vision 1** Innovative development of traditional spa treatment technologies that use natural healing sources (NHS), based on:

- Primarily knowledge of evidence-based medicine (EBM). The criterion must be medical effectiveness. This is very often unwillingly heard within the Czech spa environment. It is inconceivable that in the future spas manage with traditional medical treatments. Innovation using NHS in medical treatments in combination with more effective use of drugs leads to clinical standards and best practices. This standardization must be checked by HTA (Health Technology Assessment). Health insurance companies should promote such a measure in their own interest and the interest of the patient and gradually to require it contractually.
- Exact approach to the patient must also be applied in a personalized form.
- The mentioned exactitude will entail changes in the management systems of the spa operators, including new information systems which, in addition to conventional processes, will work with the electronic health record. Further development of the spa treatment care will not only bring much higher demands on the knowledge and skills of providers (medical

and physiotherapy staff), but also on appropriate systems for collecting, storing and processing increasing volumes of data, technical and semantic interoperability and systems supporting decision making.

- Marketing will need to focus not only on the classic spa stays paid for by health insurance, but also on specialized medical tourism products, not only foreign but also domestic ones.
- The decision making level of government, especially in the health sector will need to change its approach to preventive medical care. It is not possible to solve partial and isolated measures of preventive medical care (screening for breast, colorectal and cervical cancer, children's recreation type Seahorse) separately from system concept. The absence of preventive medical care leads to higher and ever increasing costs of medical care and it is reflected in the cost of treatment facilities (especially hospitals) and in the cost of drugs.

It is therefore to formulate and defend innovative roles of Czech spa as an important element of the effectiveness of primary preventive care and rehabilitation throughout the whole health service system.

**Vision 2** Use of professional and scientific capacities of the Czech spa industry to participate in a totally new program providing medical and preventive care in the field of Ageing, especially for maintaining the working ability of people 50+. The concept of the program Horizon 2014 – 2020, which contains societal challenge of Health, demographic changes and wellbeing will be in the form of design and implementation of appropriately targeted social innovation.

Apart from isolated sporadic attempts to detect Work Ability Index (WAI) carried out by the Association of Adult Education and Training of the Age Management none in the Czech Republic addresses such a solution. According to pilot reports prepared by VUB, research and

implementation capacities are available in the Czech Republic. Funding for this research should be addressed in the framework of EU cooperation partner. VUB will participate in the project curative maintenance and eventually in the development of mental and physical abilities of disadvantaged people 50+. In addition to that, VUB is preparing solutions related to problems of social nature in cooperation with the Research Institute for Labour and Social Affairs. Dealing with this issue requires primarily a change in the concept of occupational medicine, including occupational medicine within the Ministry of Labour and Social Affairs agenda, using active employment policy (counseling, tripartite), the introduction of Work Ability Index and the re-introduction of the International Classification of Functioning, Disability and Health. Should the state support the creation of new jobs, then it must have known the functional and operating characteristics of existing and potential job seekers, especially in the group of 50+. As well, a program, in what way to make impact on the development of these characteristics, should be in place.

VUB (Research Institute of Balneology) is the only scientific-research institute in the Ústí nad Labem region,

which has participated actively in the work of the Council for Ageing and Age Management under the auspices of the Ministry of Labour and Social Affairs. VUB is the main initiator to realize the inclusion of this issue in the framework of social innovation. VUB is engaged in looking for solutions of this issue as part of preparations of the above mentioned program Horizon 2014 – 2020 and intends to join the Europe-wide trend in Ageing. Although the existence of VUB lasts only a few years, it has become part of the scientific community in the Ústí region. The present challenges arising from Vision 1 and Vision 2 should be solved not only based on Ústí region capacities, but also with engagement of the Czech and international capacities as commonly used in the EU framework programs.

## References

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